SUMMER 1972

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The Nature Conservancy

THE NATURE CONSERVANCY NEWS

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LYNN MOHN, EDITOR

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Cover: Arrow- arum, by Sam Sloan.
Inside Cover Photo: *Spartina alterniflora,* by James Q. Reber.

LAND CONSERVATION THROUGH PRIVATE ACTION

The Nature Conservancy is the only national conservation organization, receiving its support from the public, whose resources are devoted to the preservation of ecologically and environmentally significant land.

Some 285,800 acres of forests, swamps, marshes, prairies, mountains, beaches, and islands, in 767 projects throughout the United States, have been saved from destruction by Conservancy efforts since the acquisition of its first preserve in 1954.

The Nature Conservancy works in three ways to protect threatened natural areas: by purchase of land with funds raised through public subscription, by acceptance of donations of land, and by advance acquisition of land for local, state, and federal governments.

A member-governed non-profit organization, The Nature Conservancy was incorporated in 1951 in the District of Columbia for scientific and educational purposes.

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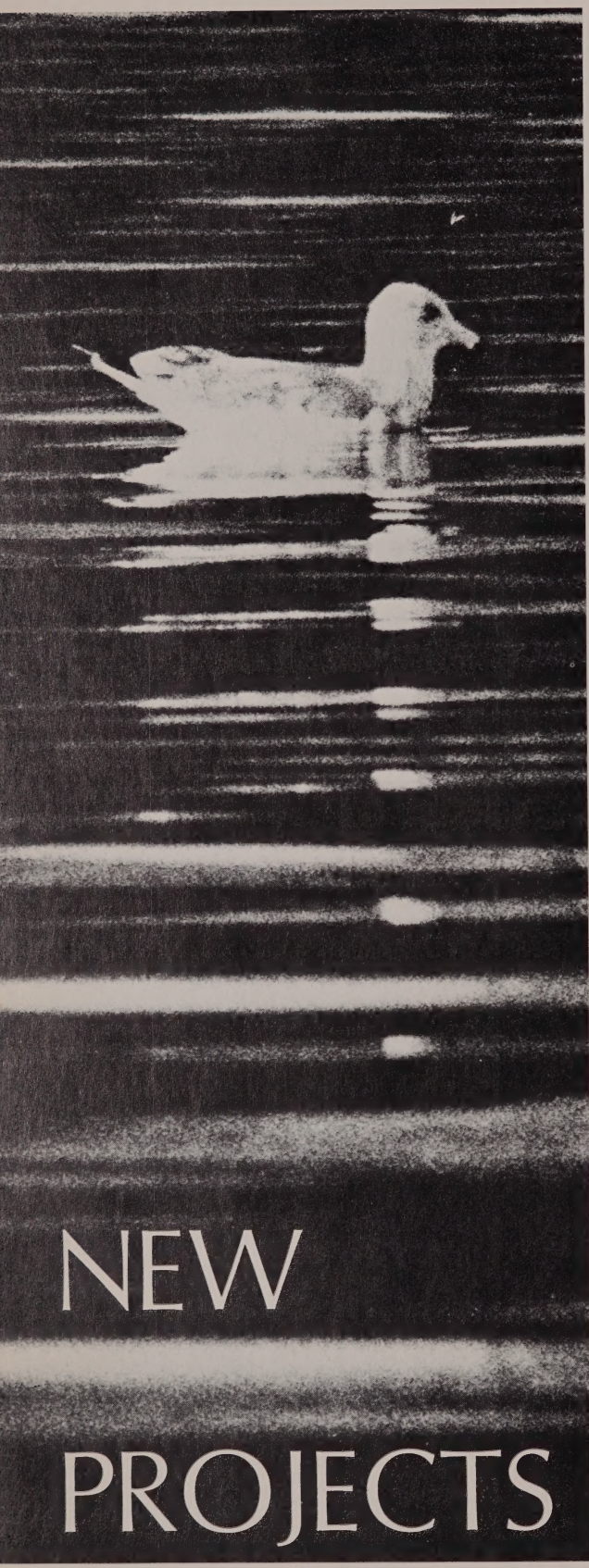


Sam Sloan

Connecticut

DUCK POND HILL—Addition—(Greenwich). A third addition to the preserve, also donated by Mrs. Audrey S. Hess, 2 wooded acres on an east-facing slope overlook a brook and pond heavily used by waterfowl.

FENN'S POND (Middlebury). A donation of 7 acres from the Middlebury Land Conservation Association, Inc., is a way-station for migratory waterfowl in spring and fall. The tract includes marsh, open field, and a pond. Transferred back to Middlebury Land Conservation Association, Inc. with reverter clause and deed restrictions.

WILLIAM AND MARY WOOD (Middlebury). A gift of Miss Elizabeth Wade White, 17 acres include forested upland with tulip, hickory, maple, and ash, lowland with open fields, and a small swamp. Pheasant, partridge, rabbit, raccoon, and fox frequent the area.

Illinois

SPECHT TRACT, Prairie Grouse Preserve (Jasper County). The Prairie Grouse Committee of the Illinois Chapter purchased a 110-acre addition to the system of sanctuaries in Jasper and Marion Counties for the threatened prairie grouse.

Maine

MILL CREEK NATURAL AREA (Falmouth County). Upstream on Mill Creek, 20 acres of woodland and salt marsh are a gift of Mr. Charles S. Payson. The tract is near the Falmouth Foreside Preserve.

Minnesota

CHIPPEWA PRAIRIE—Timm Addition—(Swift and Chippewa Counties). 40 acres of dry rocky prairie on a low plateau were purchased on Lac Qui Parle Lake. Vegetation includes goldenrod, pasqueflower, prairie crowfoot, and big and little bluestem.

CHIPPEWA PRAIRIE—Nielsen Addition—(Chippewa County). 388 acres of mid-grass prairie on a rocky plateau bordering Lac Qui Parle Lake were a purchase. Typical species include big and little bluestem, Missouri goldenrod, wild rose, dropseed, and ground plum. Part of the Ordway Prairie System, Chippewa Prairie now totals 574 acres with the two new additions.

LAKE ALEXANDER NATURAL AREA (Morrison County). The 80-acre purchase contains a parallel series of kettle lakes and marshes, com-

prising some of the most complex glacial topography in the state. Some kettles have an unusual high doughnut-like rim. Paper birch, large-toothed aspen, quaking aspen, and red oak are common trees, with scattered groves of red and white pine. White-tailed deer and ruffed grouse inhabit the area.

Missouri

OSAGE PRAIRIE (Vernon County). A purchase of 146 acres of tall-grass prairie interspersed with trees lies in a picturesque setting of rolling hills. Representative species include Indian grass, big bluestem, little bluestem, blazing star, Canadian wild rye, goldenrod, and sunflower. The preserve is approximately five miles from the Kansas state line in southwestern Missouri and is a unit in the Ordway Prairie System.

OSAGE PRAIRIE—Hunter Addition—(Vernon County). With this 969-acre purchased addition, the Osage Prairie preserve totals 1,115 acres and is one of the larger tracts of tall-grass prairies in the Midwest.

New York

MEADOW BEACH (Suffolk County). A donation from Nassau Point Causeway Association, Inc., 15 acres jutting into Cutchogue Harbor represent the last unspoiled sand beach and wetland in the surrounding community. Vegetation includes beach heather, dusty miller, *Spartina, Distichlis spicata,* saltwort, and seaside knotweed. Great blue herons, little green herons, night herons, and marsh hawks frequent the area.

MOONBEAMS SANCTUARY (Orange County). 134 acres of field, swamp, and woods are a donation of Miss Margaret L. Moon and Mrs. Truman J. Moon. White pine, hemlock, ash, red maple, and sugar maple are found on the preserve, as well as pink lady slippers. Orange County Community College conducts freshman and sophomore field trips here to demonstrate successional stages of growth from field to mature forest.

TEN MILE CREEK — Addition — (Albany County). A purchase of 29 acres adds part of a valley with year-round stream and bluffs rising gradually to 400 feet. The preserve now totals 111 acres.

THOMPSON POND—Weingrow Addition—(Dutchess County). The remainder of the Thompson Pond shoreline has been acquired with the purchase of this 130-acre tract. The pond is a 100-acre glacial lake which attracts songbirds and small mammals to its marshy shores. Red-tailed hawks frequent the area in spring and summer from their nests on nearby Stissing Mountain. (Fund-raising in progress.)

TURKEY POINT PRESERVE (Nassau County). Purchase of 2½ acres of lowland, upland, and tidal flat on Woodmere Channel, Long Island, is the first acquisition in a planned 30-acre assemblage. (Fund-raising in progress.)

North Dakota

FOREST RIVER COLONY—Dahl Addition—(Grand Forks County). The Nature Conservancy assisted the State of North Dakota Game and

am Sloan

Fish Department in purchasing 320 additional acres of prairie chicken habitat. Mid-grass and tall-grass prairie grow in this flat area once covered by glacial Lake Agassiz.

Ohio

CRAWFORD WOODS (Portage County). Mixed mesophytic forest on glacial terrain, 25 acres near Hiram were purchased by the Ohio Chapter and are planned to be leased to Kent State University for use as an outdoor laboratory.

WYOMING NATURE PRESERVE (Hamilton County). A small meandering stream flows through this ¾-acre purchased ravine and floods the flat bottomland regularly. More than 80 bird species have been sighted among the silver maple, box elder, European black alder, willow, hackberry, and black cherry. The area is a nature study site for nearby schools.

Pennsylvania

PENN CREEK (Union County). Running for 25 miles in the Allegheny Mountains from Mifflinburg to Coburn, a 150-acre abandoned railway grade following Penn Creek was purchased from the Penn Central Transportation Company. One of the finest and most unspoiled trout streams in central Pennsylvania, Penn Creek cuts through the Bald Eagle State Forest. The tract has been transferred to the Commonwealth of Pennsylvania with use restrictions.

Rhode Island

ELL POND (Washington County). On glacial outwash plains of southern Rhode Island, the Ell Pond area is composed of monadnock/kettle-hole terrain, creating an interesting mountain-moorland habitat. Granite promontories support xeric plants such as trailing arbutus, kinnikinik, and chestnut oak. A sphagnum bog surrounding the pond supports the pitcher plant, sundew, chain fern, bog bean, and rose pogonia orchid. The 17½-acre purchase also includes Atlantic white cedar, a once-abundant Rhode Island swamp tree which is fast disappearing due to commercial use.

Texas

THICK-SPIKED TRIDENS PRAIRIE (Lamar County). A prime sample of virgin tall-grass prairie, the purchase of 97 acres of gently rolling land provides habitat for marsh hawks, fox sparrows, LeConte sparrows, savannah sparrows, coyotes, and opossum. The Houston Black soil supports thick-spiked tridens, sylvania dropseed, and Florida paspalum. (Fund-raising in progress.)

Vermont

HONEY HOLLOW (Chittenden County). 355 acres of mountain hardwood forest were purchased by the Green Mountain Profile Committee of the Vermont Chapter for the State of Vermont with matching funds from the Bureau of Outdoor Recreation. An addition to Camel Hump State Park, the Hollow is a deep valley, opening out to the north, offering spectacular views of the surrounding Green Mountains.

Virginia

BULL RUN-OCCOQUAN REGIONAL PARK (Fairfax County). A 468-acre addition to the Bull Run-Occoquan Regional Park was purchased for the Northern Virginia Regional Park Authority. Wooded with thick stands of white oak, poplar, and evergreens, and providing shelter for raccoon, beaver, deer, quail, kingfisher, and duck, the preserve is a key tract in the Park Authority's proposed 5,000-acre Bull Run-Occoquan Regional Park (3,805 acres of which have now been set aside). The new addition fronts the Occoquan Reservoir for almost two miles.

DILLOW PROPERTY (Smyth County). Purchased for the U.S. Forest Service, 49 acres of north-facing mountain woodland are surrounded on three sides by the Jefferson National Forest.

Wisconsin

BARABOO HILLS—Pagel Addition—(Sauk County). A 20-acre purchase brings the Baraboo Hills preserve to 844 acres. The preserve consists of an unusual combination of northern and southern communities—white pine, hemlock, yellow birch, maple, basswood, oak, remnant prairies, and rare cliff plants.

HERITAGE HEIGHTS (Dane County). The Wisconsin Chapter assisted the city of Madison in acquiring 5 acres to be added to the city park system. The tract contains oak-hickory and maple-basswood communities; 67 species of wildflowers grow here.

HOLZ'S ISLAND (Waukesha County). Given by Mr. Rudy W. Holz, the 2-acre island lies off the east shore of Little Muskego Lake. The island consists of basswood, hickory, and black cherry on the upland, while lower portions support wet species of willow, shrubs, cattails, arrowhead, and duckweed. The tract has been transferred to the city of Muskego.

POLAK WOODS (Racine County). 13 acres of maple-beech climax forest northwest of Racine were donated by Mr. and Mrs. Joseph Drobena.

Tim Loomis

Leather-wood Creek

by
Dr. Douglas James
Department of Zoology
University of Arkansas

On the banks of a secluded Arkansas Ozark Mountain stream grows a bush so tough and yet so flexible that its bark and twigs can easily be tied in knots. The stream is Leatherwood Creek, the namesake of the appropriately named leatherwood shrub. The leatherwood's limberness defies breaking, a quality the Indians utilized in binding and basketry and the early settlers in the area used in making minnow seines. But, leatherwood is slow-growing and takes 100 years to produce a two-inch diameter trunk.

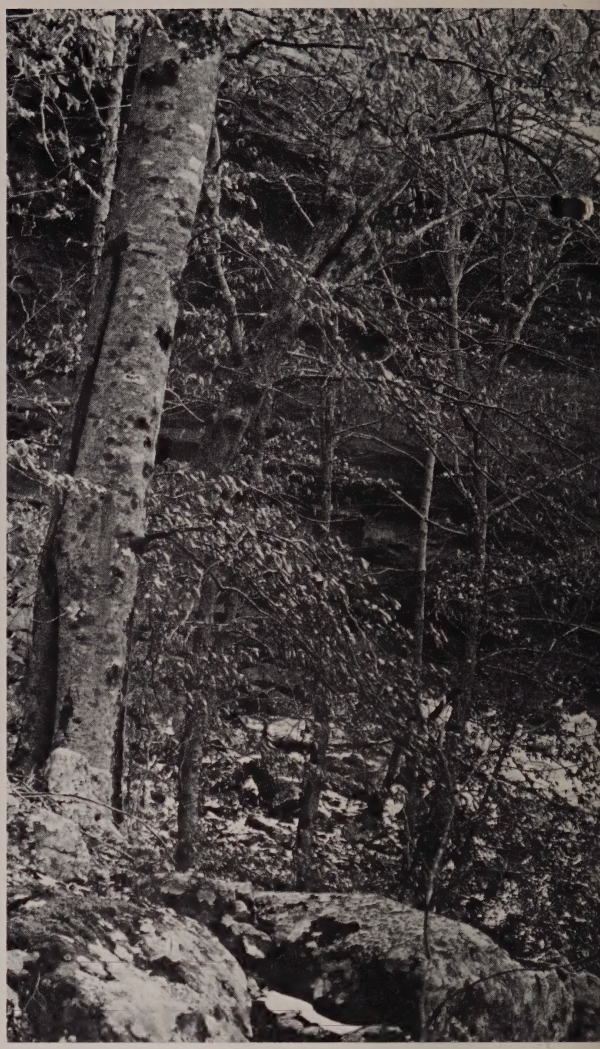
The Leatherwood Creek watershed lies in Newton County, a sparsely populated region of northwestern Arkansas displaying some spectacular

Ozark scenery. The area is famed for such well-known spots as Hemmed In Hollow, Lost Valley, and Indian Creek, all in the headwater country of the recently established Buffalo National River. Leatherwood Creek joins the Buffalo River near the community of Ponca, where hundreds of canoeists annually begin a favored float trip on the upper Buffalo. Despite this traffic, the mouth of Leatherwood is so inconspicuous few people know that it exists. I too canoed there for years before I learned about Leatherwood.

Hiking up Leatherwood Creek, one follows a verdant tunnel through the greenery of dense foliage paved underfoot by an unbroken pan of smooth limestone—a virtual sidewalk—crossed occasionally by outcropping ledges and consequent low waterfalls. Farther upstream, creek bed gravels predominate, barricaded here and there with tumbled groups of room-sized rocks. The flat-topped ones wear caps of foliage comprising isolated plant communities rich in ferns, mosses, and forbs and even small trees. There are numerous side tributaries ending blindly in cliff-sided box canyons over whose rims plummet tall thin waterfalls flowing from towering pour-off spouts in the wet season. In winter the whole valley assumes a serene openness, and the magnitude of the bedrock formations is revealed, always visible on each side as a wall of vertical cliffs. Now the trickling waterfalls are a combination of flowing water, slow dripping, and mammoth coalesced icicles projecting downward in jagged rows from the rock rims. Green ferns still are numerous on the slopes.

The Buffalo River . . .

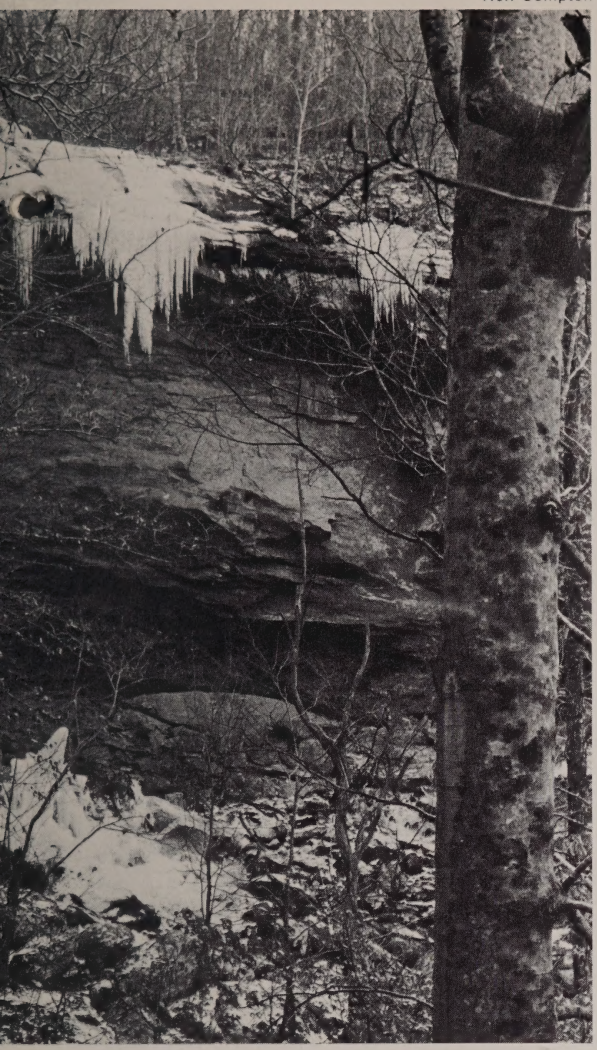
Tim Loomis



Leatherwood's trickling waterfalls become slow dripping water and icicles in winter . . .

The Ozark dryness at the end of the growing season each year favors various resistant oaks and hickories which dominate the forests. Only in protected hollows are conditions adequate for the many moisture-seeking species. Describing the richness of these ravine forests, botanist Dr. E. Lucy Braun in her book on deciduous forests called them isolated western relics of the moist mixed mesophytic forests normally found on eastern uplands. The abundance of large beech trees in the Leatherwood cove is particularly noteworthy. Ordinarily, in Arkansas, beeches are uncommon and confined to wet floodplains. But, the Leatherwood cove is favorable for an abundance of magnificent beeches all the way to the upland headwaters, a truly unique phenomenon. Another specialty is the abundance of liverworts everywhere, not just confined to isolated spots near springs and pools, but instead forming a con-

Neil Compton



tinuous carpet of green on all the creek-side rocks. The uncommon *Equisetum* also grows there.

Botanist Maxine Clark described the flora of Leatherwood Creek in the recent winter issue of the *Ozark Society Bulletin,* listing moisture-seeking species such as cucumber and umbrella magnolias, basswood, sweetgum, black gum, sugar maple, pawpaw, spice-bush, and strawberry bush. In addition I have noted *Hydrangea,* jewel weed, jack-in-the-pulpit, ninebark, *Hepatica,* walking ferns, and maidenhair ferns. *Azalea* blooms on the high dry slopes where short-leaf pines also occur.

Neighboring creeks are completely dry in autumn, but Leatherwood always has water. Thus, the seclusive wood frogs (*Rana sylvatica*) are active even in the dry season, which is extraordinary. This Ozark population is separated from the frog's main range in the moist northern forests.

Several kinds of salamanders . . .

Other frogs and several kinds of salamanders are present in Leatherwood too, and ten species of woodland warblers nest there. Chipmunks, tree squirrels, and white-tailed deer are in evidence.

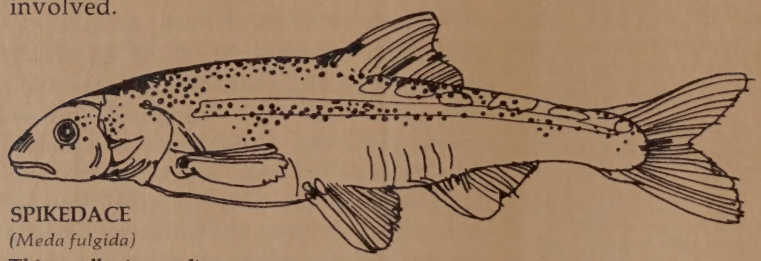
Leatherwood Creek is remarkably straight-coursing northwest, protected from wind and sun desiccation by high bluffs. From the summit, over 2,000 feet in elevation, the stream drops 1,000 feet to the mouth in only 2½ miles, exposing 150 million years of geological history and all three levels of the Ozark plateaus from Pennsylvanian to Ordovician age. The headwaters flow over 100-foot cliffs of Atoka sandstone. The view is spectacular. Here one can grasp the essence of the Ozarks. Halfway downstream Boone limestone escarpments spanning up to 300 vertical feet tower overhead, surmounted with a fringe of red cedars.

Leatherwood Creek was offered for sale for $52,125 by the late Bob Crow of Ponca, and The Nature Conservancy exercised an option to purchase it in the fall of 1971. Leatherwood Creek thus became the first volunteer project of the Conservancy in Arkansas. The parcel of land totals approximately 700 acres and comprises nearly the whole watershed. Purchase funds are being sought in Arkansas and elsewhere by the Leatherwood Creek Project Committee. After the project was initiated, the Buffalo National River became a reality under the auspices of the National Park Service. Much of the lower portion of Leatherwood Creek is inside the proposed park boundaries, but the upper part which is not included will now be protected under the aegis of The Nature Conservancy.

Surrender Or Survival?

Rare and Endangered Species

Wildlife in North America has suffered at the hands of man more than on any other continent. Sudden development from primitive to highly civilized conditions has been accompanied by the most drastic alterations in species abundance and the largest number of extinctions in historic times. Since the first Europeans arrived in the New World, 50 species of wildlife have disappeared. Today there are over 100 threatened with extinction.
In efforts to maintain the diversity of species, many public and private organizations are seeking to enhance the chances of survival of rare and endangered wildlife through research, habitat preservation, and public education. The flora and fauna depicted here are a sample of some of the species in whose protection The Nature Conservancy has been involved.



SPIKEDACE
(Meda fulgida)

This small minnow lives only in the Gila River System in Arizona and New Mexico. In the year-round stream of Aravaipa Canyon, a vast 15,384-acre canyon in Pinal County, Arizona, bought by the Conservancy; the spikedace lives in its only "protected" area.

Illustrations by Geri Lucas

CALIFORNIA CONDOR
(Gymnogyps californianus)

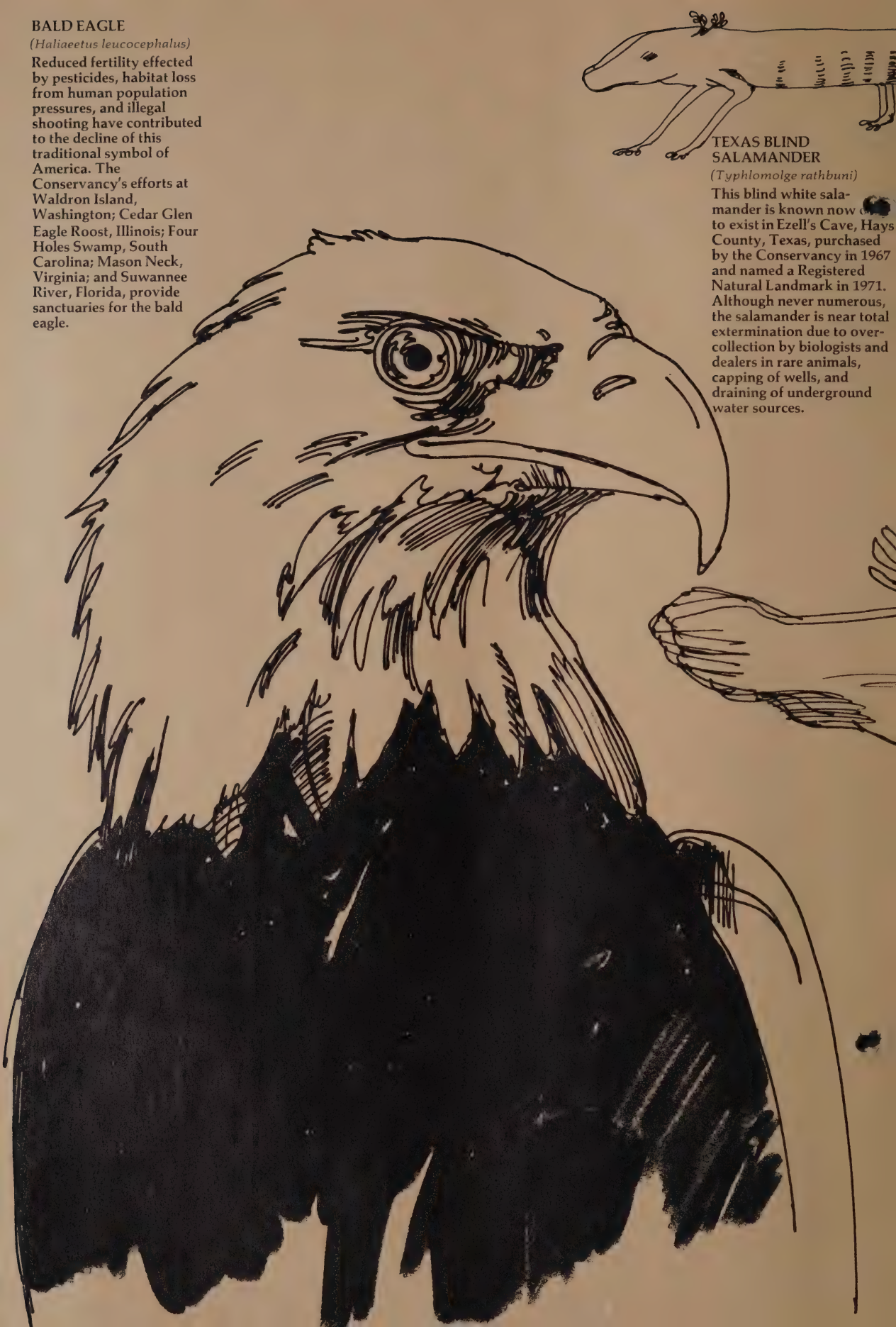
North America's largest soaring land bird, only 40-60 condors survive in two sanctuaries in California's Los Padres National Forest. Their decline is due to shooting, poisoning, and habitat interference by man. Sightings dropped 50% in 1970. In 1971 the Conservancy purchased for the U.S. Forest Service a 162-acre private inholding within one of the sanctuaries.

GEORGIA PLUME
(Elliotia racemosa)

One of the world's rarest plants, *Elliotia* grows only in a very restricted area of Georgia sandhills near streams, from the Savannah River to the Altamaha. Propagation of *Elliotia* is extremely difficult and no young seedling has ever been discovered in the wild. The Conservancy's Charles Harrold Nature Preserve, Candler County, Georgia, is one of the few places this mysterious shrub survives.

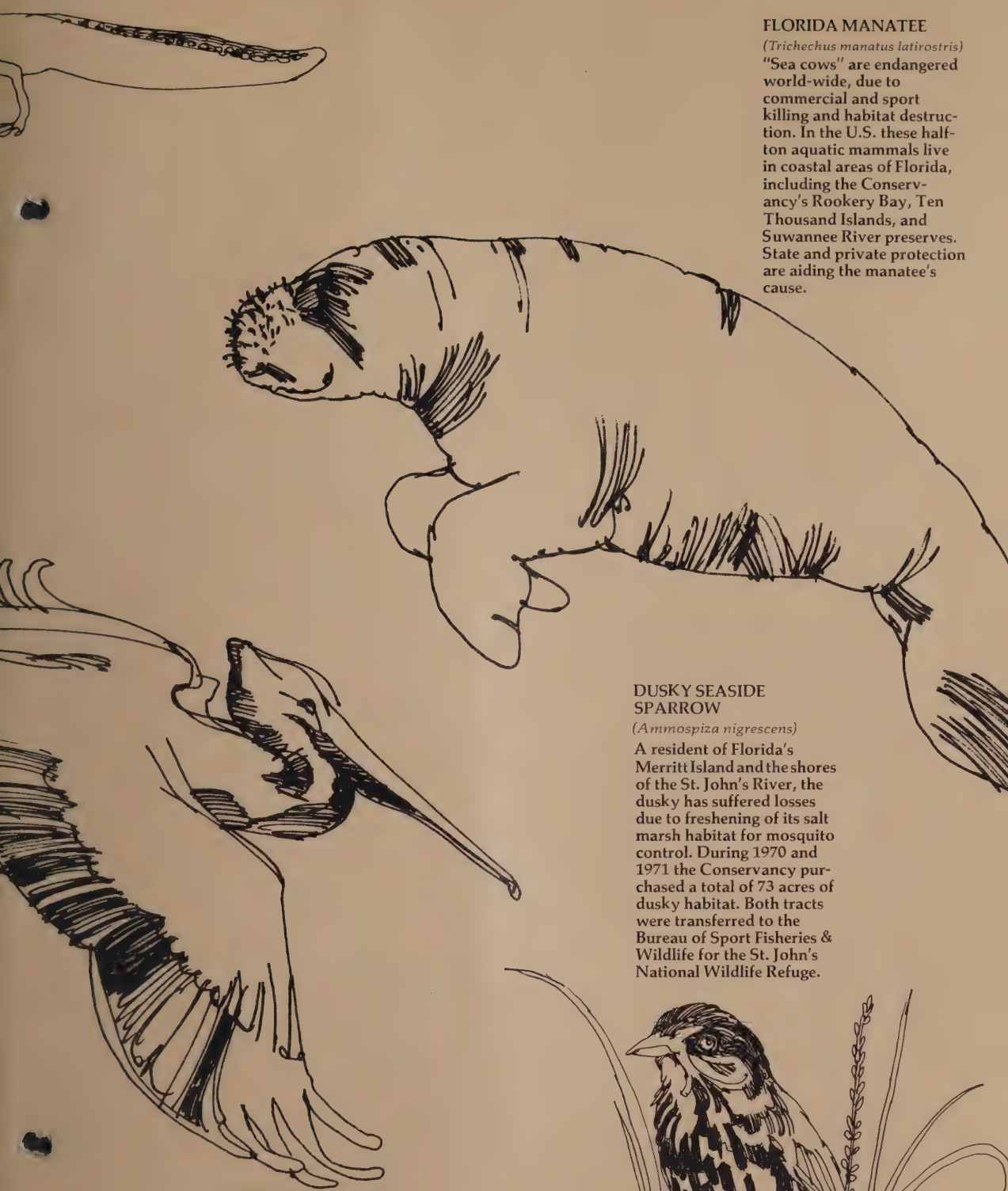
BALD EAGLE
(Haliaeetus leucocephalus)

Reduced fertility effected by pesticides, habitat loss from human population pressures, and illegal shooting have contributed to the decline of this traditional symbol of America. The Conservancy's efforts at Waldron Island, Washington; Cedar Glen Eagle Roost, Illinois; Four Holes Swamp, South Carolina; Mason Neck, Virginia; and Suwannee River, Florida, provide sanctuaries for the bald eagle.



TEXAS BLIND SALAMANDER
(Typhlomolge rathbuni)

This blind white salamander is known now only to exist in Ezell's Cave, Hays County, Texas, purchased by the Conservancy in 1967 and named a Registered Natural Landmark in 1971. Although never numerous, the salamander is near total extermination due to overcollection by biologists and dealers in rare animals, capping of wells, and draining of underground water sources.



FLORIDA MANATEE

(Trichechus manatus latirostris)

"Sea cows" are endangered world-wide, due to commercial and sport killing and habitat destruction. In the U.S. these half-ton aquatic mammals live in coastal areas of Florida, including the Conservancy's Rookery Bay, Ten Thousand Islands, and Suwannee River preserves. State and private protection are aiding the manatee's cause.

DUSKY SEASIDE SPARROW

(Ammospiza nigrescens)

A resident of Florida's Merritt Island and the shores of the St. John's River, the dusky has suffered losses due to freshening of its salt marsh habitat for mosquito control. During 1970 and 1971 the Conservancy purchased a total of 73 acres of dusky habitat. Both tracts were transferred to the Bureau of Sport Fisheries & Wildlife for the St. John's National Wildlife Refuge.

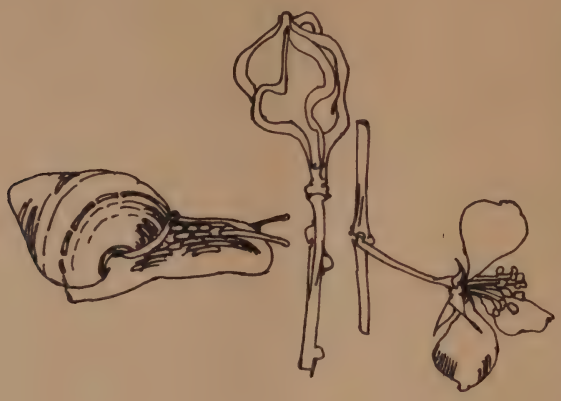
BROWN PELICAN

(Pelicanus occidentalis)

Drastic reduction in breeding ability may be traceable to pesticide poisoning. Out of thousands of brown pelicans in California, only one chick hatched in 1970. The birds frequent the coastal sanctuaries at Spindrift Point, Marin County, California, and Rookery Bay and Ten Thousand Islands, Florida.

HAWAIIAN HONEYCREEPERS

The 4,674 acres of Hawaii's Kipahulu Valley on the island of Maui acquired by the Conservancy in 1968 and 1971 help protect three endangered honeycreepers: Maui nukupuu (*Hemignathus lucidus affinus*), crested honeycreeper (*Palmeria dolei*), and Maui creeper (*Loxops maculata newtoni*). The nukupuu was rediscovered in 1967 after 70 years of believed extinction. Highly specialized and adapted to the original Hawaiian habitat, these birds began their decline when the first white men arrived in the islands.



LIGNUMVITAE

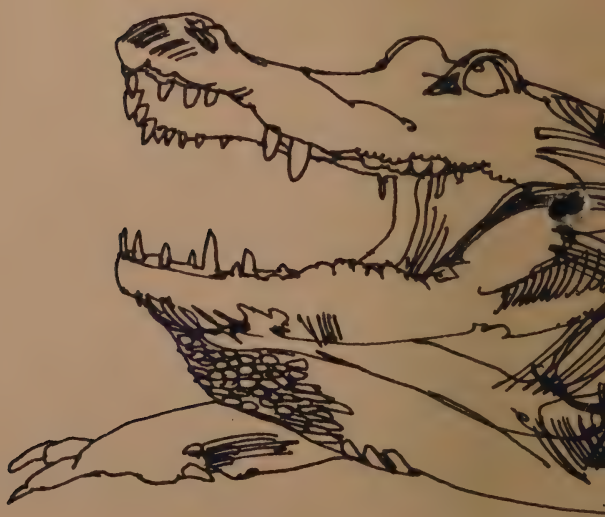
(Guaiacum sanctum)

Its wood so dense and heavy it sinks in water, the lignumvitae "tree of life" has been nearly eliminated in the U.S. by development except on Lignumvitae Key, Florida, acquired by the State of Florida in 1971 with Conservancy aid. The lignumvitae bears a small blue flower and yellow fruit and helps provide a haven for the threatened tree snail genus *Liguus*. The island itself contains the last and best preserved stand of West Indian hardwoods in the U.S.

BLACK-TAILED PRAIRIE DOG

(Cynomys ludovicianus)

In February 1972 The Nature Conservancy purchased 98 acres of black-tailed prairie dog habitat in Sweetgrass County, Montana. This prairie dog has been wiped out over most of its former range by poisoning programs seeking to eliminate it as a "menace" to grazing land of sheep and cattle.



PRAIRIE CHICKENS

(Tympanuchus cupido pinnatus)

(Tympanuchus cupido attwateri)

The greater prairie chicken is being protected by The Nature Conservancy in preserves in Jasper and Marion Counties, Illinois, and in Grand Forks County, North Dakota. A sanctuary for Attwater's prairie chicken is also set aside in Colorado County, Texas. Hunting and loss of their natural tall-grass prairie habitat due to cultivation and grazing has greatly reduced the numbers of these birds.

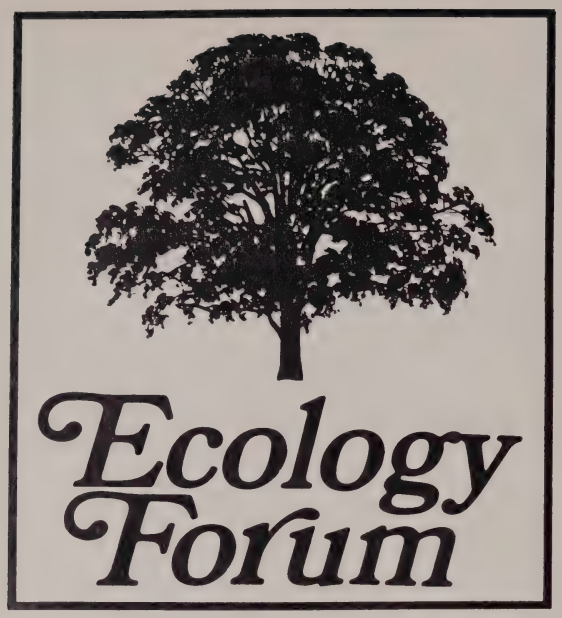
AMERICAN ALLIGATOR

(Alligator mississippiensis)

AMERICAN CROCODILE

(Crocodylus acutus)

Killing for commercial skins and for sport, as well as destruction of swamp habitat, has placed these large reptiles on the endangered list. Protective legislation has brought some recovery. Alligators and/or crocodiles inhabit the waters of the Conservancy's Four Holes Swamp, South Carolina, and Sanibel Island, Rookery Bay, Ten Thousand Islands, Suwannee River, and Theodore Roosevelt preserves, Florida.



No. 4
by Dr. Robert E. Jenkins

A NATIONAL NATURAL AREAS INVENTORY

The precursor body to The Nature Conservancy, a special committee of the Ecological Society of America, undertook an inventory of the remaining natural areas in the U.S. and in 1926, under the editorship of Victor Shelford, produced the "Naturalist's Guide to the Americas." In this guide they identified a large number of significant natural areas which they felt should be preserved. Since then some of those areas have been saved, many have been destroyed, and many are still awaiting their fate.

Since that original effort, a wide variety of other inventories have been done, and The Nature Conservancy or its individual members have been active in nearly every one of them. Of special note was the study, "Nature Sanctuaries in the United States and Canada," published in 1950, and conducted under the auspices of the Conservancy's predecessor organizations as well as the then newly named Nature Conservancy. The report, which was the culmination of twelve years of work, involved the efforts of over 250 scientists and laymen and constituted a preliminary inventory of 691 major sanctuaries.

To enumerate all the studies that have been performed would be impossible, but to mention some of the more recent ones will illustrate the scope of the enterprise. Current efforts include an international survey of protected terrestrial natural areas useful in research, being done by the International Biological Program (IBP). A "United Nations List of National Parks and Equivalent Reserves" has been published for the International Union for Conservation of Nature and Natural Resources. The U.S. section of the IBP effort has broadened its survey to include separate inventories of aquatic and marine areas, and the international program is apparently following suit. The National Park Service is conducting "theme studies" (examples: vulcanism, freshwater wetlands, caves and springs) through its National Landmarks program to identify and recognize areas of national significance.

The Federal Committee on Research Natural Areas has been intermittently active over a number of years in an interagency attempt to survey federal lands and set aside areas representative of the full spectrum of naturally-occurring ecosystem types, primarily keyed to vegetation associations. These again are to be used mainly for scientific research. In 1968 the Committee published a directory of the more than 300 areas then designated. This number has now risen to over 600, but the directory has not yet been systematically updated. Inventories have been conducted by more specialized organizations such as the Society of American Foresters, which has been searching for, cataloging, and encouraging protection of exemplary forest tracts since the 1920's.

Even more survey work has been done on the state and regional level. Subunits of many of the above groups, such as the federal agencies in the Pacific Northwest, have conducted more intensive operations on a smaller scale. Vogelmann's reports on Vermont natural areas appeared in 1964 and 1969, and "Natural Areas of Indiana" by Lindsey, Schmeltz, and Nichols was published in 1969 as well. Similar studies are complete or in some stage of preparation in Texas, Wisconsin, Washington, Oregon, Maryland, Ohio, Michigan, Illinois, California, Minnesota, and Iowa. Still other states have newly established natural area systems and are getting necessary surveys underway. An inventory has just been completed for all six New England states through the New England Natural Resources Center. Several universities are engaged in inventories of areas for research and teaching, notably the University of California under its Natural Land and Water Reserves System.

Other surveys of geographic provinces rather than political subdivisions include those by the

River Basin Commissions and similarly oriented organizations. Coastal zone surveys have now been or are being conducted by nearly everybody with an interest in or jurisdiction over such regions. The national staff of The Nature Conservancy has been involved in many recent efforts, two along these lines, for the purpose of using the results in planned acquisition programs. An inventory of the coast of Maine was carried out to Conservancy design and specifications by a planning and consulting firm under a grant from the New England Regional Commission, and a survey of the Chesapeake Bay is presently being done by the Ecology Department of the Smithsonian with earmarked grants through the Conservancy and the Chesapeake Bay Foundation.

Unfortunately, there is no *single* compendium of all the information on U.S. natural areas. A comprehensive inventory would be useful in many phases of the preservation effort, especially to document the rarity and significance of individual areas. By making a careful study of the whole landscape to pick out those areas which are significant for the degree of naturalness they have retained or for some special features or properties, and then comparing this information with what is known about natural area types and their abundance or characteristics, it is possible to some extent to set an ecological value on each and to demonstrate it. If an area is threatened with destruction, some protection may be afforded simply by revealing and publicizing (at the right time) what a serious loss its destruction might be.

In a related way, comprehensive information is important to those involved in natural areas preservation in order to set priorities and to allocate their limited resources. As the pressures increase and the number of areas declines, the need for this input becomes increasingly critical.

Not only do we lack a synthesis of all the information but we lack a flexible system for keeping it current. The rapid aging of information, along with differences of approach and definition, and the welter of overlapping, conflicting, and incomplete studies, make the question of data management in the field an absolute nightmare. It can be honestly said that there is no one in the world who has enough comprehensive knowledge to confidently answer the simplest questions. No one knows, for example, how many prairies, salt marshes, or forest sites are being protected, or by whom, or under what sort of management, or with what characteristics.

What we need is a nationwide synthesis of the available and continuously growing body of information into a data bank that would permit rapid retrieval, revision, and manipulation. The idea has been discussed for some time, and there have been some false starts which failed for lack of coordination, leadership, or funding. A new effort is now being launched by The Nature Conservancy which will hopefully avoid earlier pitfalls and benefit from the experience of others. A number of other important groups will be closely cooperating, and the system will be accessible to all legitimately interested parties.

This present effort is the culmination of a number of converging enterprises, and the coalition in support of the project is encouragingly broad. It is proposed that a small staff under the direction of The Nature Conservancy, supported by specially obtained funding, be placed in the newly established Natural Areas Center of the Smithsonian Institution's Ecology Department. The new Center will be dealing with various aspects of natural areas, including both domestic and foreign inventories. The Smithsonian's quasi-governmental status makes it a logical intermediary between government and private groups in this cooperative effort. The National Inventory and Register will be the largest initial project conducted under the Center's umbrella and will be the synthesizer for information derived from its other studies.

The staff engaged in the Register will gather all available information and assemble it into manageable form. This data salvage operation will involve creation of a master file format and the entry of certain standard records into a computerized data storage and retrieval system. Both presently protected and prospective areas will be included, and computerization will make it possible to manipulate the data in ways useful to preservation efforts. As soon as possible, state and regional syntheses will be produced and distributed for both use and revision.

Information will be obtained from many sources, including the inventories mentioned above. Of particular importance will be the IBP inventories, the Federal Committee's data, the National Landmark theme studies, and The Nature Conservancy's files. A continuing flow of information will be solicited by the many organizations active in collecting it from primary sources. The Register will serve the cooperators in return by organizing and redistributing the data they supply.

Hopefully this will help with one of the most intractable problems. In spite of the plethora of surveys, much of the information on natural areas is still in the files of individual natural scientists and others who originally collected it. Finding them and obtaining their data can be

very difficult, and the problem has been exacerbated by the repetition of similar requests to the same individuals over many years. The promise of a comprehensive synthesis and the prospect of regional catalogs, a data bank, and other products of this project may reinvest these persons with enthusiasm and help bring tighter coordination.

What we are dealing with in nature preservation are tracts of land set aside as living space for the full diversity of biological species and types, as well as their physical environment with its own innate properties. This diversity represents genetic and other information, and each datum in the system is a potential or actual contributor to human well-being and/or the health and stability of the biosphere upon which we all depend. Each deletion from this encyclopedia of life means that there is another question that can never be answered. Questions we have never thought of before come up every day, some forced to our attention by a critical need. This biospheric library is the only place we can turn to for answers.

While even the smallest libraries have at least card catalogs, the largest have microfilm and computerized cross-referencing to avoid losses and facilitate retrieval. The natural areas system, representing the largest information storage system mankind is ever likely to encounter, hasn't yet even the simplest comprehensive index to its broader categories.

BULLETIN: New President Named

Everett M. Woodman has been appointed President of The Nature Conservancy and will assume duties in early September. The Board announcement came just as the *News* went to press. Dr. Woodman, currently President of Colby Junior College in New Hampshire, is experienced as an educator and administrator in the U.S. and overseas. He has also served with the State Department and as a consultant to several private organizations.

Dr. George C. Shattuck

Dr. George C. Shattuck, professor emeritus at the Harvard School of Public Health and a world reknowned authority on tropical medicine, died June 12, 1972, at the age of 92, at his home in Brookline, Massachusetts. Dr. Shattuck was for many years the Conservancy's representative in the state of Massachusetts and served on the Board of Governors from 1956 to 1962. He was a Life Member.

1972 ANNUAL MEETING AND CONFERENCE

"Stewardship, Acquisition, and Resources —Workshops for Action" is the theme for this year's Conference to be held in connection with the Annual Meeting at Mohonk Mountain House, New Paltz, New York, October 20-21, 1972.

Volunteers and staff attending the Conference will be able to take part in workshops in five different subject areas. Sessions are planned which will deal with science and scientific use, preserve management, acquisition tools and techniques, development of resources including public relations, publications, fund-raising, and membership, and administration and finance.

The Eastern New York Chapter, the host chapter, is coordinating the efforts of other area volunteers and has planned a series of field trips for Sunday, October 22, following the Conference. In New York, members will have a choice of visiting Minnewaska State Park, Lisha Kill, and Pine Bush or taking a special overnight trip to the Adirondacks and the Santanoni Preserve. The Connecticut Chapter has also planned Sunday field trips to Pond Mountain Natural Area and Devil's Den.

Details and "Official Notice" will be mailed to all Life and Annual Members in mid-August. The special mailing will include information covering registration procedures, where to write for field trip reservations, as well as a listing of all accommodations in the area (ranging from full American Plan and private rooms to primitive or "pull-in" camping at Mohonk to alternate lodging sites in the area.)

Project members, those persons who do not hold Annual or Life Memberships, but who have contributed to a project or worked on a project committee, and non-members desiring to receive the August mailing should write the National Office (Attention: Annual Meeting Registrar) to make sure their names are added to the mailing list for the notice.

The autumn foliage and Mohonk Mountain House should insure a perfect backdrop for this year's Conference. Accommodations are available that will meet every budget and taste. The workshops are planned to be exciting and informative.

Without doubt, this year's Annual Meeting and Conference promises to be one of the best in the Conservancy's history.

The GENERAL FUND needs your support

Great blue heron: Photo by Sam Sloan

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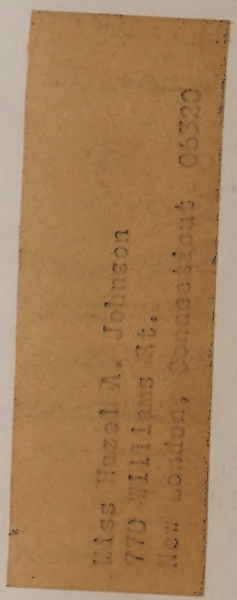

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